

Physics of the Solid State 1997 vol.39 N3, pages 446-447

Possibility of the appearance of spin autowaves in a model of a ferromagnet with nonuniform dissipation

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Abstract

A model of a ferromagnet with nonuniform dissipation is introduced for the Landau-Lifshitz equations. It is shown that in this model a ferromagnet can be regarded as an oscillating active medium where the formation of autowave structures - spin autowaves, pacemakers, and spiral waves - is possible. Their wave characteristics, expressed in terms of the parameters of the medium, are found for a special case. © 1997 American Institute of Physics.
